Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A computer-implemented method for adjusting the color of pixels in an image, each pixel having one or more color values, the method comprising:

identifying a target region of pixels in the image that represent an object, the object having a shape and a predefined set of features, the predefined set of features including at least a first feature, a second feature, and a third feature;

defining one or more spatial profile functions based at least in part on one or more spatial properties of one or more of the predefined set of features;

calculating a redeye probability that one or more pixels in the target region represent a portion of an eye exhibiting a redeye effect, based at least in part on a color of the one or more pixels;

calculating a first probability that the one or more pixels in the target region represent the first feature ~~a first one of the predefined features~~ based at least in part on a color of the one or more pixels;

calculating a second probability that the one or more pixels in the target region represent the second feature ~~a second one of the predefined features~~ based at least in part on a color of the one or more pixels;

combining the first probability and the second probability according to a probability function to calculate a third probability that the one or more pixels represent the first feature or the second feature; and

computing a new color of the one or more pixels in the target region based at least in part on the redeye probability, the third probability that the one or more pixels represent the first feature or the second feature and the one or more spatial profile functions.

2. (Original) The method of claim 1, wherein the spatial properties include size.

3. (Original) The method of claim 1, wherein the spatial properties include shape.

4. (Previously Presented) The method of claim 1, wherein the spatial profile functions include a sigmoid function.

5. (Previously Presented) The method of claim 1, wherein the spatial profile functions include a Gaussian function.

6. (Previously Presented) The method of claim 1, wherein the spatial profile functions include a spatial profile function defined by a mask.

7. (Original) The method of claim 1, wherein identifying a target region of pixels includes:

receiving data that identifies the target region of pixels.

8. (Previously Presented) The method of claim 1, wherein the first feature comprises skin and the second feature comprises sclera.

9. (Previously Presented) The method of claim 1, wherein the first feature comprises skin and the second feature comprises highlight.

10. (Previously Presented) The method of claim 1, wherein the one or more spatial profile functions comprise a spatial profile function defined based at least in part on one or more spatial properties of a ciliary margin.

11. (Canceled)

12. (Currently Amended) The method of claim 1, wherein:

the image is a photographic image including an eye exhibiting a redeye effect; and

the identified region of pixels includes a plurality of pixels that correspond ~~corresponds~~ to a portion of the eye that exhibits the redeye effect.

13. (Previously Presented) The method of claim 1, wherein:

the predefined set of features include at least one of skin, sclera, iris, highlight, an edge, or redeye.

14. (Currently Amended) The method of claim 1, wherein computing the new color includes:

computing the new color to match a representative color for the region; and

using the third probability that the one or more pixels represent the first feature or the second feature to change the computation.

15. (Original) The method of claim 14, wherein the representative color represents an iris color for the eye.

16. (Currently Amended) The method of claim 1, wherein computing the new color includes:

desaturating the color of pixels in a subregion of the region; and

using the third probability that the one or more pixels represent the first feature or the second feature to modulate the amount of desaturation.

17. (Original) The method of claim 16, wherein:

the subregion is the center of the region.

18. (Original) The method of claim 16, wherein:

the subregion is an outer rim of the region.

19. (Previously Presented) The method of claim 1, wherein computing the new color includes:

reducing a luminance value of one or more pixels that correspond to the pupil of an eye.

20. (Previously Presented) The method of claim 1, wherein computing the new color includes:

computing the color of a pixel based in part on color values of pixels surrounding the pixel.

21. (Previously Presented) The method of claim 20, wherein computing the new color of a pixel based in part on color values of pixels surrounding the pixel includes:

defining a window of pixels surrounding the pixel; and

determining a representative color for the window of pixels.

22-25. (Canceled)

26. (Currently Amended) A computer readable medium encoded with a computer program for adjusting the color of pixels in an image, the computer program comprising instructions operable to cause data processing equipment to perform operations comprising:

identifying a target region of pixels in the image that represent an object, the object having a shape and a predefined set of features, the predefined set of features including at least a first feature, a second feature, and a third feature;

defining one or more spatial profile functions based at least in part on one or more spatial properties of one or more the predefined set of features;

calculating a redeye probability that one or more pixels in the target region represent a portion of an eye exhibiting a redeye effect, based at least in part on a color of the one or more pixels;

calculating a first probability that the one or more pixels in the target region represent the first feature ~~a first one of the predefined features~~ based at least in part on a color of the one or more pixels;

calculating a second probability that the one or more pixels in the target region represent the second feature ~~a second one of the predefined features~~ based at least in part on a color of the one or more pixels;

combining the first probability and the second probability according to a probability function to calculate a third probability that the one or more pixels represent the first feature or the second feature; and

computing a new color of the one or more pixels in the target region based at least in part on the redeye probability, the third probability that the one or more pixels represent the first feature or the second feature and the one or more spatial profile functions.

27. (Previously Presented) The computer readable medium of claim 26, wherein the spatial properties include size.

28. (Previously Presented) The computer readable medium of claim 26, wherein the spatial properties include shape.

29. (Previously Presented) The computer readable medium of claim 26, wherein the spatial profile functions include a sigmoid function.

30. (Previously Presented) The computer readable medium of claim 26, wherein the spatial profile functions include a Gaussian function.

31. (Previously Presented) The computer readable medium of claim 26, wherein the spatial profile functions include a spatial profile function defined by a mask.

32. (Previously Presented) The computer readable medium of claim 26, wherein identifying a target region of pixels includes:

receiving data that identifies the target region of pixels.

33. (Previously Presented) The computer readable medium of claim 26, wherein the first feature comprises skin and the second feature comprises sclera.

34. (Previously Presented) The computer readable medium of claim 26, wherein the first feature comprises skin and the second feature comprises highlight.

35. (Previously Presented) The computer readable medium of claim 26, wherein the one or more spatial profile functions comprise a spatial profile function defined based at least in part on one or more spatial properties of a ciliary margin.

36. (Canceled)

37. (Currently Amended) The computer readable medium of claim 26, wherein:

the image is a photographic image including an eye that exhibits a redeye effect; and

the identified region of pixels includes a plurality of pixels that correspond ~~corresponds~~ to a portion of the eye that exhibits the redeye effect.

38. (Previously Presented) The computer readable medium of claim 26, wherein:

the predefined set of features include at least one of skin, sclera, iris, highlight, an edge, or redeye.

39. (Currently Amended) The computer readable medium of claim 26, wherein computing the new color includes:

computing the new color to match a representative color for the region; and

using the third probability that the one or more pixels represent the first feature or the second feature to change the computation.

40. (Previously Presented) The computer readable medium of claim 39, wherein the representative color represents an iris color for the eye.

41. (Currently Amended) The computer readable medium of claim 26, wherein computing the new color includes:

desaturating the color of pixels in a subregion of the region; and

using the third probability that the one or more pixels represent the first feature or the second feature to modulate the amount of desaturation.

42. (Previously Presented) The computer readable medium of claim 41, wherein:

the subregion is the center of the region.

43. (Previously Presented) The computer readable medium of claim 41, wherein:

the subregion is an outer rim of the region.

44. (Previously Presented) The computer readable medium of claim 26, wherein computing the new color includes:

reducing a luminance value of one or more of the pixels that corresponds to the pupil of the eye.

45. (Previously Presented) The computer readable medium of claim 26, wherein computing the new color includes:

computing the color of a pixel based in part on the color values of pixels surrounding the pixel.

46. (Previously Presented) The computer readable medium of claim 45, wherein computing the new color of a pixel based in part on the color values of pixels to surround the pixels includes:

defining a window of pixels to surround the pixel; and

determining a representative color for the window of pixels.

47-50. (Canceled)

51. (Previously Presented) The method of claim 1 wherein computing the new color includes computing the color based in part on an original color of the one or more pixels.

52. (Previously Presented) The computer readable medium of claim 26, wherein computing the new color includes computing the color based in part on an original color of the one or more pixels.